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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,509	09/10/2004	Erwin Welbergen	APO32-04	1140
34758 7590 01/30/2007 JACK SHORE MUCH SHELIST FREED DENENBERG AMENT&RUBENSTEIN,PC 191 N. WACKER DRIVE SUITE 1800 CHICAGO, IL 60606-1615			EXAMINER VIDWAN, JASJIT S	
			ART UNIT	PAPER NUMBER
			2182	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/30/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/507,509

Applicant(s)

WELBERGEN, ERWIN

Examiner

Jasjit S. Vidwan

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

In light of Applicant's remarks, the finality of previous rejection has been withdrawn. Claims 16-32 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16-18, 21-23, 26-28, 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hesley et al U.S. Patent No: 6,489,947 [*herein after Hesley*] and further in view of Lignoul U.S. Patent no: 6,374,145 [*herein after Lignoul*]

3. As per Claims 16, 26, 28 and 32, Hesley teaches a system for preventing the maintaining of a sustained cramped motionless position of a limb [Col. 3, Lines 55-59, "...an ergonomic dual-section computer-pointing device, that includes a cursor control section fixedly and movably connected to an ergonomic hand support section, reduces stress and helps to prevent cumulative trauma disorder"] comprising:

(a) Element [see Fig. 2A, element 200, "an ergonomic dual-section computer-pointing device] providing an input signal controllable by a user through interaction with a user's limb [see Fig. 2B, element 292] disposed adjacent said element [Col. 13, Lines 60 – pressure sensors determine whether a hand is present over the element]

(b) Timing means [see Fig. 4B, element 402, Pressure timing circuit] for determining the length of time when a limb is present [Col. 6, Lines 64-67]

(c) Means for generating an alarm signal when said length of time exceeds a threshold value [Col. 14, Lines 39-49 – also see Fig. 5, element 508]

Hesley teaches the above limitations and further teaches starting the timing means when the hand is present on the pointing device. However, Hesley does not expressly teach starting the timing means when the hand is present and inactive (i.e. no input signal (hand movement) is detected).

Lignoul discloses a system used by I/O devices such as Hesley's pointing device. Like Hesley, Lignoul senses physical presence of a user to proximity of the I/O device using a proximity sensor [see **Fig. 1, element 105 – presence of user/limb**]. However, Lignoul goes further to also disclose a timer mechanism that starts the timer when a user is present near the I/O device, but inactive (no input signal provided by movement of the device) [Col. 11, Lines 57-62]. The said timer is restarted each time an input signal is detected [Col. 8, Lines 34-37].

One of ordinary skill in the art at the time of Applicant's invention would have been motivated to combine the above teachings to take advantage of using Lignoul's system to activate various computer programs such as Hesley's alarm system to alert the user of a potential impending problem [Col. 13, Lines 20-34]. It is for this reason that one of ordinary skill in the art would have been motivated to combine the two teachings as modified above.

4. **As per claim 17**, Hesley as modified by Lignoul above teaches a system wherein there is included a sensor capable of detecting the presence of a limb placed on or over at least a part of said element [Col. 13, Lines 46-58, "*Pressure sensor*"]

5. **As per claim 18**, Hesley as modified by Lignoul above teaches a system wherein signal comprises a tactile signal [Col. 5, Line 63 – Col. 6, Line 6].

6. **As per Claim 21**, Hesley as modified by Lignoul above teaches a system in which the alarm signal has multiple settings whereby the nature of the alarm signal changes if the presence of the limb continues to be detected after the alarm signal has initially been generated [Col. 14, Line 63 – Col. 15, Line 5, "*...the severity of the warning increases*"].

7. **As per Claim 22 and 31**, Hesley as modified by Lignoul above teaches a system in which the alarm signal comprises means for generating an audible alarm [see **Fig. 4B, element 403 & 475**, "*Sound generator*" - "*Speaker*"]

8. **As per claim 23 and 30**, Hesley as modified by Lignoul above teaches a system wherein the alarm signal comprises means for generating a visual signal [**Col. 15, Lines 43-48**]

9. **As per Claim 27**, Hesley as modified by Lignoul above teaches a device in which the configuration of the device is adapted to allow the means for detecting activity of the user's limb to detect the activity of a user's limb placed on or over at least part of the element [**Col. 13, Lines 46-58, "Pressure sensor"**], and means for communicating the signal representative of the detected activity to a controller configured to generate the alarm signal if no user activity is detected after a period of user activity [**Col. 14, Lines 39-49 – also see Fig. 5, element 508**].

10. Claims 19, 20 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hesley and Lignoul and further in view of Serpa U.S. Patent No: 6,587,091 [**herein after Serpa**].

11. **As per Claim 19 and 29**, Hesley as modified by Lignoul teaches the limitations of claims 18 and 28, however fail to teach a system wherein the element includes a member adjacent the limb and disposed adjacent the member is a motor operated eccentric mass that vibrates the member the tactile signal. However, Serpa teaches the limitation wherein the element [see Serpa, Lines 33-38] includes a member adjacent the limb and disposed adjacent the member is a motor operated eccentric mass [see Serpa, Fig. 2a, element 11, 12] that vibrates the member to provide the tactile signal [see Serpa, Col. 1, Lines 31-34].

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the above teachings in order to take advantage of plurality of practical applications such as with computer systems intended for use by the vision or hearing impaired to game systems that enhance a user's experience through force feedback [**see Serpa, Col. 1, Lines 37-44**]. It is for this reason that one of ordinary skill in the art at the time of Applicant's invention would have been motivated to combine the above teachings.

12. **As per claim 20**, Lignoul as modified by Serpa above teaches a system wherein the element comprises a mouse housing and the motor operated eccentric mass is located within the housing to vibrate the housing, thus causing the tactile signal [**see Serpa, Fig. 3a, elements 11 – motor, 19 – housing**]

13. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hesley and Lignoul and further in view of Gould et al U.S. Patent No: 6,065,138 **[herein after Gould]**.

14. **As per claim 24**, Hesley as modified by Lignoul teaches the limitations of claims 16 and further means for generating the alarm signal if the nature of the interaction conforms to a profile **[Col. 15, Lines 43-48]**, however fail to teach a system wherein the system includes a risk profile defining unacceptable interaction between a limb and the controllable element. However, Gould teaches a system that includes a risk profile defining unacceptable interaction between the limb and the controllable element **[see Gould, Col. 1, Lines 14-17]**

One of ordinary skill in the art at the time of Applicant's invention would have clearly recognized the advantage of combining the above teachings in order to take advantage of preventing Repetitive stress injury (RSI) that can be caused by excessive typing and bad hand position among other activities **[see Gould, Col. 1, Lines 25-27]**. It is for this reason that one of ordinary skill in the art would have been motivated to combine the above teachings.

15. **As per Claim 25**, Hesley and Lignoul as modified by Gould above teach a system including means for compiling and storing a record of the interaction between the user-controllable element and the users limb and the generation of alarm signals over a period of time **[see Gould, Col. 2, Lines 13-20]**.

Response to Arguments

Applicant's arguments with respect to claims 16-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasjit S. Vidwan whose telephone number is (571) 272-7936. The examiner can normally be reached on 8am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KIM HUYNH can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSV
1/25/07



KIM HUYNH
SUPERVISORY PATENT EXAMINER

1/26/07